


Idaho Department of Correction  	<b>Standard Operating Procedure</b>  <b>Division of Management Services</b>  <b>General Administration</b>	<b>Control Number:</b> 141.03.04.006	<b>Version:</b> 1.2	<b>Page Number:</b> 1 of 4
		<b>Title:</b> Power Outage: Data Center Shutdown and Startup Procedures		<b>Adopted:</b> 4-13-2010  <b>Reviewed:</b> 4-13-2010  <b>Next Review:</b> 4-13-2012

This document was approved by Tony Meatte, chief of the Division of Management Services, on 4/13/10 (signature on file).

#### BOARD OF CORRECTION IDAPA RULE NUMBER

[None](#)

#### POLICY STATEMENT NUMBER 141

[Information Technology Management](#)

#### POLICY DOCUMENT NUMBER 141

[Information Technology Management](#)

#### DEFINITIONS

[Standardized Definitions List](#)

**Hard Drive:** A short term for computer hard disk drive, which is the place where a computer user's data is stored (i.e., where the user's files and folders are physically located).

**Hardware:** Any and all parts on, connected to, or about a computer that can be physically touched such as the computer case, mouse, monitor, keyboard, and speakers.

**Keyboard, Video, Mouse Switch (KVM Switch):** A hardware device that allows a user to control multiple computers from a single keyboard, video monitor, and mouse.

**Lockbox:** A small box that has a lock and key or combination for the purpose of storing valuables (e.g., door keys).

**Novell Login Credentials:** A network user's login identification (ID) and password.

**Physical Server:** A specific computer that is typically one (1) of a cluster of machines serving the same domain.

**Uninterruptable Power System (UPS):** An electrical apparatus that provides emergency power to a load when the input power source, typically the utility mains, fails.

**Virtual Machine:** A simulated computer; simulated in terms of it running on a host computer but behaving as if it were a separate computer.

**Virtual Server:** A server that utilizes the hardware of one (1) physical server to provide the appearance, services, and capabilities of multiple servers.

<b>Control Number:</b> 141.03.04.006	<b>Version:</b> 1.2	<b>Title:</b> Power Outage: Data Center Shutdown and Startup Procedures	<b>Page Number:</b> 2 of 4
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## PURPOSE

The purpose of this standard operating procedure (SOP) is to establish procedures for manually shutting down and starting up servers and virtual machines in the information technology (IT) Unit's data center (located at Central Office).

## SCOPE

This SOP applies to any IT Unit staff member, contractor, or subcontractor designated by IT operations management to perform manual shutdown and startup procedures for the data center.

## RESPONSIBILITY

### ***Chief of the Division of Management Services***

The chief of the Division of Management Services (or designee) is responsible for overseeing and monitoring the provisions provided herein.

### ***IT Executive Management***

IT executive management shall be responsible for implementing this SOP and for ensuring designated staff members, contractors, and subcontractors are capable of performing **and** practicing the guidelines, standards, and procedures provided herein.

## Table of Contents

General Requirements .....	2
1. Shut Down Procedures .....	2
2. Start Up Procedures.....	4
References.....	4

## GENERAL REQUIREMENTS

### 1. Shut Down Procedures

In the event of a power outage that causes the IT Unit's data center to lose power and necessitates a data center shutdown, the uninterruptable power system (UPS) will activate. The UPS will only provide temporary power for approximately 30 minutes, and as a result, designated IT operations staff shall perform the following process steps.

Functional Roles and Responsibilities	Step	Tasks
Designated IT Operations Staff	1	<ul style="list-style-type: none"> <li>Monitor temporary power status to ensure servers can be manually shutdown within the time remaining. (This is done by checking the UPS display.)</li> <li>Report the time remaining to IT operations management.</li> </ul>

<b>Control Number:</b> 141.03.04.006	<b>Version:</b> 1.2	<b>Title:</b> Power Outage: Data Center Shutdown and Startup Procedures	<b>Page Number:</b> 3 of 4
---	------------------------	---	-------------------------------

Functional Roles and Responsibilities	Step	Tasks
Designated IT Operations Staff	2	<p>Begin notifying staff of the impending data center shutdown.</p> <ul style="list-style-type: none"> <li>• <b>For Central Office</b> – Have the Central Office receptionist send a building-wide page announcement.</li> <li>• <b>For All other IDOC locations</b> – Telephone all IDOC locations.</li> </ul>
Designated IT Operations Staff	3	<p>If keycard access does not work for entry into the data center, retrieve the door keys, which are labeled accordingly, from the IT lockbox.</p> <p><b>Note:</b> If needed, a flashlight is available inside the data center.</p>
Designated IT Operations Staff	4	<p>Immediately <b>after</b> Central Office <b>and</b> all IDOC sites have been notified of the impending shutdown, begin shutting down the servers in the order described in the Server Shutdown Order List.</p> <p><b>Note:</b> Because the Server Shutdown Order List contains login credentials, the list is not appended to this SOP and will remain under the control of IT operations management and a copy placed in the IT lockbox.</p>
Designated IT Operations Staff	5	<p><b>CAUTION:</b> Physical servers <u>must be shutdown</u>, not just powered off.</p> <ul style="list-style-type: none"> <li>• <b>Physical Servers</b> -- To shutdown a physical server, log into the machine (using the corresponding KVM switch and your Novell login credentials), and shutdown the server.</li> <li>• <b>Virtual Machines</b> -- To shutdown virtual machines, use the virtual center console on the 'ESXcore1' physical server. <ul style="list-style-type: none"> <li>◆ Remote desktop to the 'ESXcore1' physical server;</li> <li>◆ Log into the server (using your Novell login credentials);</li> <li>◆ Launch the 'VMware' infrastructure client (log in using your Novell login credentials); and</li> <li>◆ Right click on the virtual server and select 'shutdown guest'.</li> </ul> </li> </ul> <p><b>Note:</b> In the event that the network is down, the ESXcore servers can be shutdown via the switch box in the back of the data center.</p>
IT Operations Management	6	<p>Phone both Idaho Power <b>and</b> Central Office building maintenance and inform them of the power outage.</p>

<b>Control Number:</b> 141.03.04.006	<b>Version:</b> 1.2	<b>Title:</b> Power Outage: Data Center Shutdown and Startup Procedures	<b>Page Number:</b> 4 of 4
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## 2. Start Up Procedures

Once power has been restored to the data center, and the power has been stable for at least 15 minutes, the data center will need to be started up again using the following process.

Functional Roles and Responsibilities	Step	Tasks
Designated IT Operations Staff	1	Begin notifying staff that power has been restored. <ul style="list-style-type: none"> <li><b>For Central Office</b> – Have the Central Office receptionist send a building-wide page announcement.</li> <li><b>For All other IDOC locations</b> – Telephone all IDOC locations.</li> </ul>
Designated IT Operations Staff	2	Begin startup of the servers in the order described in the Server Startup Order List. <b>Note:</b> Because the Server Startup Order List contains login credentials, the list is not appended to this SOP and will remain under the control of IT operations management and a copy placed in the IT lockbox.
Designated IT Operations Staff	3	<b>Virtual Server</b> -- To startup a virtual server, make sure the 'ESXcore' physical servers are powered on. <ul style="list-style-type: none"> <li>Remote desktop to the 'ESXcore1' physical server;</li> <li>Log into the server (using your Novell login credentials);</li> <li>Launch the 'VMware' infrastructure client (log in using your Novell login credentials); and</li> <li>Right click on the virtual server and select 'restart guest'.</li> </ul> <b>Note:</b> Virtual machines can be restarted through the virtual center console on the 'ESXcore1' physical server. With the exception of the production database, <b>the physical machines only need to be powered on—they do not need to be logged into.</b>

## REFERENCES

**Note:** Both of the following lists will be maintained by IT operations management and maintained in an 'emergency information' folder that will be maintained in the IT lockbox. If a list is missing from the IT lockbox, please inform IT operations management.

*Server Shutdown Order List*

*Server Startup Order List*

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